United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road
Carlsbad, California 92009

In Reply Refer To:
FWS-MCBCP-4413.1

MAR 22 2005

Mr. John Robertus
Executive Officer
San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, California 92123-4340

Re: Tentative Order Nos. R9-2005-0005 and R9-2005-0006, National Pollutant Discharge Elimination System Permit Nos. CA0108073 and CA0108181, Waste Discharge Requirements for Southern California Edison, San Onofre Nuclear Generating Station Units 2 and 3, San Diego County, California

Dear Mr. Robertus:

Thank you for providing the U.S. Fish and Wildlife Service (Service) the opportunity to review and comment on the subject Tentative Orders addressing National Pollutant Discharge Elimination System Permit Nos. CA0108073 and CA0108181, Waste Discharge Requirements for Southern California Edison ("applicant"), San Onofre Nuclear Generating Station (SONGS) Units 2 and 3, San Diego County, California. The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, certain marine mammals and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*; "Act").

The SONGS facility is located in coastal northern San Diego County within the boundaries of Marine Corps Base, Camp Pendleton. Units 2 and 3 use a once-through cooling system that, combined, discharges offshore from the facility over 2.5 billion gallons of cooling water and facility-generated effluent per day. It is unclear if the facility is in compliance with entrainment and impingement performance standards for intake structures under Section 316(b) ("Phase II Rules") of the Clean Water Act; the current Tentative Order does not clearly demonstrate this. These Phase II Rules require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental effects. As stated on page 41 of Attachment E of Tentative Order Nos. R9-2005-0005 and R9-2005-0006, an estimated 2,569,039 total number of fish were impinged in 2003 as a result of the operation of the Unit 2 intake structure. It is unclear how many fish were affected by entrainment

and thermal releases, from increased depredation from marine predators that may be attracted to the fish return system (Love *et al.* 1989) and whether all of these losses reflect the minimum adverse effects.

There may be indirect effects to species listed under the Act that may occur as a result of the impacts to fish populations in the vicinity of SONGS. For example, of the fish impinged in 2003, 88 percent (*i.e.,* about 2.3 million) were northern anchovies (*Engraulis mordax*). Two listed piscivorous seabirds, the California least tern (*Sterna antillarum browni*) and the California brown pelican (*Pelecanus occidentalis*), also occur in the vicinity of SONGS. Both of these species feed upon the northern anchovy with the brown pelican in particular being "highly dependent" on this fish (Thompson *et al.* 1997, Shields 2002). The northern anchovy is but one example, other impacts to prey fish are likely occurring. It is unclear whether populations of these two listed seabirds are being impacted by changes in food availability in the vicinity of SONGS.

We are concerned about the impacts resulting from entrainment and impingement of marine organisms, especially anchovies, that occur during SONGS operation. Also, we are concerned over the potential impact that may occur to the marine environment as a result from the proposed changes in thermal loading. Additionally, we are concerned over the potential increased depredation that may also occur as a result of the fish bypass system further exacerbating the losses of prey fish as result of SONGS operations.

The Tentative Order acknowledges that the California Coastal Commission has conditioned the applicant's coastal permit to require mitigation that will offset the marine resource impacts that have been caused by SONGS Units 2 and 3; however, it is unclear what those mitigation activities entail. The applicant should demonstrate that impacts to marine organisms, especially prey species for federally listed piscivorous birds, have been minimized and mitigated. The Service is interested in working with the Regional Water Quality Control Board and the applicant in addressing the potential impacts to listed species and the marine environment.

If you have any questions regarding this letter, please contact Gjon Hazard at (760) 431-9440 extension 287.

Sincerely,

for

Karen Goebel
Assistant Field Supervisor

cc:
William Paznokas, CDFG

References Cited

Love, M. S., M. Sandhu, J. Stein, K. T. Herbinson, R. H. Moore, M. Mullin, J. S. Stephens, Jr. 1989. Analysis of Fish Diversion Efficiency and Survivorship in the Fish Return System at San Onofre Nuclear Generating Station. NOAA Technical Report NMFS 76. 16 pp.

Shields, M. 2002. Brown Pelican (Pelecanus occidentalis). *In* The Birds of North America, No. 609 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Thompson, B. C., J. A. Jackson, J Burger, L. A. Hill, E. M. Kirsh, and J. L. Atwood. 1997. Least Tern (Sterna anillarum). *In* The Birds of North America, No. 290 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.